

# CERTAIN PHONETIC TENDENCIES PERCEIVED IN THE IDIOLECTS OF SELECTED NATIVE TEXANS

TELETÉ ZORAYDA LAWRENCE\*

The study of distinctive phonetic characteristics in the speech of Texas has been, and continues to be, a subject of investigation. A primary study analyzed the responses of 20 Texas-born and educated university student-informants (Lawrence, 1963).<sup>1</sup> Identical material, 160 sentences exemplifying the vowel forms of American English, was used to determine the phonic forms and features inherent within the various idiolects at the time of interview.<sup>2</sup> Subsequent observation and analyses substantiate and support the initial investigation.

Scholars have observed that in English the vowels provide the "main vehicle for dialectal differences" (Fry, 1964; Kurath and McDavid, Jr., 1961). The speech of Texas, a deservedly unique dialect of American English geographically situated in a transition area, is accordant with this observation. Numerous phonetic changes are encountered on vocalic forms and certain phonetic tendencies are operant (Malmberg, 1963).

The front vowels [ɪ, ε, æ] demonstrate instability within certain phonic contexts. Here a tendency is evidenced toward an interchange of these particular forms with, however, no apparent confusion in word meaning. The most persistent phonic interchange is raising [ε] > [ɪ] before nasals /n, m/ and consonantal /s, t, d, k/. Conversely, [ε] may be lowered to [æ] within similar sound contexts. Less regularly [ɪ] may be lowered to [ε], usually preceding /n, m/. The most unique variation is the lowering of [ɪ] > [æ] before the velar-nasal [ŋ]. This change does not appear to be a phonetic accident. It was noted in 45 % of the cases in the primary study and continues to occur with regularity in subsequent analyses. Due to the inconsistency of sound shifts, frequently unpredictable even within one idiolect, the chief phonetic characteristic is the *interchange itself*.

The tendency toward raising and tensing certain vocalic forms is routinely percei-

---

\* Fort Worth, Texas, Texas Christian University.

<sup>1</sup> Primary study supported by Faculty Research Grant, Texas Christian University, Fort Worth, Texas, 1961—1963. Subsequent observations and analyses conducted at the same institution.

<sup>2</sup> Vocalic forms [ɪ ɪ ε æ u ʊ ɔ ə ə ~ ʌ eɪ oʊ aʊ aɪ oɪ ju] in Grant Fairbanks, *Voice and Articulation Drillbook* (2d ed. rev.), pp. 28—56. Harper and Bros., New York. 1960.

ved. This is more apparent on monophthongal /ɪ, ε, æ/, the first element of diphthongal /au, ai/ and the last element of complex /ju/. A multiplicity of phone types are inherent *within* each particularized symbolic form as exemplified:

- [ɪ] > [ɪ<sup>1</sup>, ɪ<sup>2</sup>, ɪ<sup>3</sup>; ɪ<sup>4</sup>]; [ε] > [ε<sup>1</sup>, ε<sup>2</sup>, ε<sup>3</sup>; ε<sup>4</sup>]; [æ] > [æ<sup>1</sup>, æ<sup>2</sup>, æ<sup>3</sup>; æ<sup>4</sup>]; [au] > [æu, æ<sup>1</sup>u, æ<sup>2</sup>u, æ<sup>3</sup>u; æ<sup>4</sup>u]; [ai] > [a<sup>1</sup>i, a<sup>2</sup>i, a<sup>3</sup>i; a<sup>4</sup>i]; [ju] > [ju<sup>1</sup>, ju<sup>2</sup>, ju<sup>3</sup>; ju<sup>4</sup>].

The acoustic factor of half-long to long prolongation is noted. However, the variable of noticeable nasality (nasalization) — “at least qualities which are interpreted as being nasal”—is the most characteristic accompanying feature of this specific tendency (for quote, Van den Berg, 1962). The nasalized acoustic impression is undoubtedly due to the increased localized muscular tension evidenced physiologically in production and not of necessity the acoustic result solely of an insufficient closure of the velopharyngeal sphincter. To illustrate: in the /ɪ, ε/ variants, the blade of the tongue is tensed and the oral resonating cavity is constricted; in the /ju/ variants, hypertensive palatalization occurs; in the [æ, au] variant forms, the dorsum of the tongue is unduly raised, tensed and usually retracted with an accompanying factor of hypertensive musculature in the velar, faucal and pharyngeal areas. All of these factors contribute adversely to the realization of the optimum resonance potential. This suprahyoid hypertension has a pervasive tensing effect upon the subhyoid musculature and, it is hypothesized, upon the *internal* as well as the external laryngeal musculature; thus, it becomes a prime etiological element in the perceived “nasality” (Greene, 1964). With this hypertensive syndrome operant, the complex overtone spectrum has been acoustically altered by certain formant shifts on these particular phonemes (Luchsinger and Arnold, 1965). The term “phonemic nasality (nasalization)” has been suggested to describe this accompanying feature of functional etiology perceived on certain raised and tensed vocalic forms (Lawrence, 1967).

Conversely, a tendency toward backing and/or lowering is noted on vocalic forms /ɔ, v, a/, especially before /r/ in the centering diphthongal combinations [ɔr, vr, ar] > [ɔ<sup>1</sup>r, v<sup>1</sup>r, a<sup>1</sup>r]. Again, a hypertensive syndrome is encountered in the excessive retraction of the tongue and undue muscular tension in adjacent areas, notably the pharynx. The optimal resonance capabilities, both supra- and subhyoid, are not achieved. In fact, the entire muscular synergy is disrupted with its accompanying adverse acoustic effects and the ultimate phonation goal of an optimum pneumo-phonetic balance is not attained.

Also relative to vocalic forms /ɔ, v, a/, a pronounced tendency toward an interchanged usage is evident without limitation to surrounding sound contexts. Again, no confusion in word meaning is apparent.

A marked tendency toward the use of more complex forms is perceived wherein a monophthong is diphthongized or triphthongized. In addition, a diphthongal form

may become a triphthong or a more complex 4-element vocalic form. This phonetic change occurs frequently on /ɪ, ε/, æ before nasals /n, m/ and before consonants /s, t, d, l/. It also is commonly encountered on diphthongal forms /er, or, ar/. Exemplified forms are:

- [ɪ] > [ɪ<sup>2</sup>, ɪ<sup>3</sup>, ɪ<sup>4</sup>; ɪ<sup>5</sup>]; [ε] > [ε<sup>2</sup>, ε<sup>3</sup>, ε<sup>4</sup>; ε<sup>5</sup>]; [æ] > [æ<sup>2</sup>, æ<sup>3</sup>, æ<sup>4</sup>; æ<sup>5</sup>]; [er] > [e<sup>2</sup>er, e<sup>3</sup>er, e<sup>4</sup>er; e<sup>5</sup>er]; [or] > [o<sup>2</sup>or, o<sup>3</sup>or, o<sup>4</sup>or; o<sup>5</sup>or]; [ar] > [a<sup>2</sup>ar, a<sup>3</sup>ar, a<sup>4</sup>ar; a<sup>5</sup>ar].

The relationship to the acoustic variable of duration is apparent. However, due to the changes in pitch and timbre perceived during the emission of these complex forms, the effect of this tendency upon the overall rhythm and melody pattern is of even greater import.

Again, conversely, a tendency toward the monophthongization of a more complex form is demonstrated on phonemic /ar, or/ as the initial element is retained with half-long to long prolongation and the second element is omitted. The lax /ar/ form is rarely perceived; rather, [ar] > [a<sup>1</sup>, a<sup>2</sup>, a<sup>3</sup>, a<sup>4</sup>; a<sup>5</sup>] with additional accompanying features. The phonic form [ɔr] > [ɔ<sup>1</sup>, ɔ<sup>2</sup>, ɔ<sup>3</sup>, ɔ<sup>4</sup>; ɔ<sup>5</sup>] preceding /l, s, z/ with backing on the first prolonged element frequently perceived.

The speech of Texas is an area for research which warrants investigation in greater depth and scope. Certain acoustical and physiological findings already apparent have far-reaching implications for clinical phoniatric procedures.

#### REFERENCES

- Fry, F. D. (1964), “Experimental Evidence for the Phoneme,” in *In Memory of Daniel Jones*. D. Abercrombie, D. B. Fry, P. A. D. MacCarthy, N. C. Scott, and J.L.M. Trim (eds.), pp. 67—68 Longmans, London.
- Greene, M. C. L. (1964), *The Voice and its Disorders* (2nd ed.), pp. 183—185. J. B. Lippincott, Philadelphia.
- Kurath, H. and McDavid, Jr., R. I. (1961), *The Pronunciation of English in the Atlantic States*, p. 2. The University of Michigan Press, Ann Arbor, Michigan.
- Lawrence, T. Z. (1963), “An Analysis of the Speech of Twenty Students at Texas Christian University.” Unpublished Master’s thesis, Texas Christian University; off-set lithography.
- Lawrence, T. Z. (1967), “Regional Speech of Texas: A Description of Certain Paralinguistic Features.” Proceedings (to be published in 1968, by the Publishing House of the Academy of the S. R. of Romania), Xth International Congress of Linguists, Bucharest, Romania.
- Luchsinger, R. and Arnold, G. E. (1965), *Voice — Speech — Language Clinical Communicology: Its Physiology and Pathology*, p. 458. Wadsworth Pub. Co., Belmont, California.
- Malmberg, B. (1963), *Phonetics*, pp. 101—103. Dover Publications, Inc., New York.
- Van den Berg, J. W. (1962), “Modern Research in Experimental Phoniatrics,” Main Lecture. XIIth International Congress of Logopedics and Phoniatrics (Padua), *Folia Phoniatrica* 14: 117—118.

## DISCUSSION

*Annan:*

The allophonic variations within vowels in given contexts will, I consider, be similar and will not basically affect the system, e.g. [I + η] > [æ̃] ∴ [æ + η] > [æ̃ɾ].

*McDavid:*

It would be desirable to know the homes of the selected informants and the distribution of these phonetic features according to regions of Texas. Even if the conclusion is reached that these features occur in all parts of Texas, we should first have the data by informants and communities before we generalize.

*MacCarthy:*

You stated, regarding the tendency to nasalise vowels, that often the soft palate was not lowered. Were the contexts of the vowels in question pre-nasal consonant (in which case presumably the soft palate *would* have been lowered), and if not, what is your evidence for your statement?

*Lawrence:*

ad Annan: The allophonic variations within vowels in given contexts will be similar and therefore will not basically affect the system; thus, your deduction could be expected to be valid. However, it must be pointed out that the tendency toward *raising* is routinely associated with the acoustic impression of nasalization and not the lowering signal as indicated in your example.

ad MacCarthy: The acoustic impression "interpreted as being nasal" (quote from Van den Berg) is routinely perceived on vocalic forms *not* in pre-nasal position; thus, the familiar phenomenon of assimilative nasality would not be suspect as the causative factor. My evidence for the described hypertensive syndrome being the primary etiological factor involved in this specific tendency, that it is not of necessity the acoustic result *solely* of an insufficient closure of the velopharyngeal sphincter, is derived primarily from practical clinical experience. However, conclusions advanced by Van den Berg and Greene (see above *References*) are highly supportive.

ad McDavid Jr.: The data you mention exists in the body of the primary study relative to the 20 student-informants comprising that particular study. The same described phonetic tendencies continue to be demonstrated by subsequent student-informants born and educated in numerous additional areas of Texas. The usage-patterns are on a highly individualized basis, not all informants employing all tendencies. In addition, specific tendencies do not appear to be confined to specific regions. These observations are admittedly but a beginning and serve as an indication of the magnitude of the task ahead before definitive conclusions can finally be drawn for this vast geographical area.